

An Essay  
on  
Pneumonia

Respectfully submitted to the  
Faculty of the Homoeopathic  
Medical College of Pennsylvania.

By

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February 1<sup>st</sup> 1858 —

The health of the body depends upon its organs performing properly their several functions. Also the functional irregularity of one organ will disorder the entire system. But this general sympathy is more apparent and dangerous as the organ first attacked is important. Thus when the lungs heart or any other of the viscera are diseased the whole system is sometimes so disordered that death soon results. Hence the term vital has been applied to these organs. I have chosen as the subject of this thesis Pneumonia or inflammation of the lungs - organs whose health is most essential to the welfare of the whole system. Now before the physician can properly diagnose the disease affecting any organ he must become acquainted with its pathology which would imply a knowledge of its anatomy and physiology - This remark is especially true in diagnosing the pathological states of the lungs which when known will reveal the progress made by the disease and its probable termination. Pathologists

have received great encouragement to continue their important investigations by their discoveries in this region of their science. From this field Laennec Andral and other eminent pathologists have reaped their richest harvest of truths, which are now such an invaluable aid in the proper treatment of this disease. I will now state the anatomy of the lungs. They are two in number, occupying the cavity of the chest, each of the shape of an irregular cone - They rest on the diaphragm, are protected anteriorly, posteriorly and laterally by the walls of the chest. The bronchia, nerves and blood vessels, enter the lungs at the upper portion of their posterior margins - Each lung is divided into lobes, the right having three, the left only two. The left lung is excavated for the reception of the heart, which is situated between the two lungs. Their colour varies with age. In infancy it is of a pinkish hue, in the adult greyish with black spots and in old age is much darker. They are lighter than water, hence sections of the lungs will float.

They are made up of blood vessels, lymphatics, nerves, air cells, and bronchial tubes all connected together with areolar tissue. As has been stated the blood vessels, bronchia and nerves enter the lungs at the upper portion of their posterior margins. The two main divisions of the trachea entering the lungs at this place divide and subdivide until their ramifications buried in their substance become so diminutive as not to be seen without the aid of a microscope. They are lined through their whole extent with a mucous membrane beautifully supplied with mucus follicles. According to the calculation of Rochoux there are three hundred million air cells in each lung. They are arranged in lobules. Each lobule has its own bronchial tube into which some of its cells immediately open and communicate with it through the former. The cells are lined with a fibrous membrane; hence in pneumonia the inflammation of this membrane is accompanied by a deposition of fibrine. The lobules do not communicate with one another.

The arteries are called pulmonary and bronchial,  
the former conveys the blood to the lungs to become  
renovated - Their capillaries completely surround  
and line the air cells. The blood is thus brought  
into near proximity with the air, being separated  
from it by only a thin membrane - The nerves  
of the lungs come from the pneumogastric nerve  
and cervical ganglia. The lungs are surrounded  
by and to the pleura by means of cellular tissue  
The pleura is a serous membrane and being  
often inflamed in this disease, pleurisy  
aggravates the pains of the patient by a  
number of new symptoms.

Although the Physiology of the lungs  
And though the mode by which the blood is  
purified in the lungs is still discussed by phys-  
iologists, they all agree that it is here purified  
and made fit for the system, and that the  
cells and bronchia must be free from all foreign  
matter that the air may have free passage

through their whole extent before this purification  
will be accomplished.

### The pathology of Pneumonia

Its pathology is very interesting as it reveals the remarkable changes which result from the inflammation of the lung tissue. The lungs are liable to a series of changes from inflammation and each of them should obtain from the physician serious attention. They are divided into four stages. The first is engorgement - the second red hepatization, the third grey hepatization and the fourth the stage of gangrene. In engorgement the lung is gorged with blood. Hence the natural color of the lung gives place to a dark red. The air cells and tubes being partially filled with an effusion of mucus and fibrine contains less air. Hence the diseased lung does not expand as much under the pressure of the finger as the healthy lung. It is less elastic, retaining the impression of the finger. Its consistence is that of the spleen, and when cut a bloody serum exudes and lastly turns

its specific gravity though less than water is increased. In red Hepatization there is no exsiccation as the air is completely excluded from the cells by the effusion - A piece of the lung will sink in water. Its substance when cut is of an uniform red colour except where it is mottled by specks of the black matter of the lung and interlobular areolar tissue. The cells are obliterated and the lungs becomes quite solid though of less consistence being more easily crushed or broken - It is enlarged in its bulk. The lung is said to be hepatized, because of the resemblance of its interior when cut with that of the liver.

In the stage of grey Hepatization the red or mottled appearance of the lung changes to a reddish yellow colour. This is owing to the progress made by the process of disorganization. Now if the incised lung is compressed, a uniform matter exudes.

Nearly all firmness of texture has disappeared  
and the lung can be reduced to a yellowish  
grey pulp by crushing it with the fingers. This  
is the last stage of ordinary pneumonia, Gangrene  
sometimes attacks the lung but it is a very rare  
result of pneumonia and generally constitutes an  
independent and primitive affection. Its presence  
is announced to the physician by the horrible  
odour of the patient's breath and expectoration.  
I have just stated the great changes undergone  
by the lungs in pneumonia - Now they are  
not necessarily fatal. The stage of suppuration  
is not always followed by hepatisation. It often  
yields to the reaction of a vigorous constitution  
and Homoeopathic treatment generally succeeds in  
in subduing this stage when resorted to early.  
And Hepatization is not always fatal. It is  
true that it incapacitates the lung, but in the  
first place seldom are both lungs attacked  
with pneumonia at the same time, hence

though one is hepatalized the respiratory function  
may be performed by the other - In the  
second place as the lung is divided first into  
lobes and then into lobules, hepatalization  
may be confined to one of the former or latter  
and thus but a small portion of one lung  
be useless - And lastly the hepatalized part  
may be thrown off by expectoration and its place | off  
be supplied by new tissue and thus the  
lung is entirely repaired. But when both  
lungs are at the same time diseased the  
result is generally unfavorable or if the  
patient recovers from the pneumonia he  
will soon fall victim to phthisis pulmonalis  
Pneumonia attacks the right lung twice  
as often as it does the left and the lower  
lobes are more abnoxious to the disease  
than the upper ones. In pneumonia the  
mucous membrane of the trachea is always  
inflamed and the pleura is often attacked

hence this disease is always complicated with Bronchitis and often with Pleurosy. Having stated the pathology of this disease I will proceed to explain the signs of auscultation and percussion. A change occurring to the lungs is followed by an alteration of their normal sounds and these afford to a certain extent a true diagnosis of the progress of the disease. The effusion of matter into the air cells during engorgement is indicated by a peculiar crackling sound which Dr Williams says is similar to that made by rubbing a lock of hair between the fingers. The natural respiratory murmur is a gentle rustling sound. Hence when one becomes acquainted with the last sound he will upon mechanical principles refer the former to the passage of air through the effused liquid. But this is one of the signs of Bronchitis yet the other symptoms of

Pneumonia will serve to decide that engorgement and not Bronchitis is present. Hepatization destroys this sound of creptation and in its stead there is bronchial respiration. The passage of air into the lung is confined to the bronchia - It is a puffing sound or like that produced by blowing through a quill. The voice can be heard with great clearness on account of the solidification of the lung. This clear and loud voice is called "bronchophony". The healthy lung being of a spongy texture is a poor conductor of sound and therefore the voice in its passage loses its distinctness, becoming a humming or muttering - Percussion of the chest over the hepatized portion is dull and flat. Such are the physical signs of Pneumonia, Yet they may be absent and still there be the disease. For the diseased portion may be so entirely covered by healthy lung as to be beyond the reach

of auscultation or percussion. Hence the art of percussion and auscultation should obtain from the young practitioner much study and he must practice them on many patients before he will become excellent in their use.

### The causes of Pneumonia

They are various. <sup>Incessitudes of weather,</sup> It is especially apt to occur at the breaking up of Winter and early in Spring. Sudden exposure to cold. It is very prevalent in the cold latitudes. The inhalation of acid and poisonous substances. Immoderate exercise of the lungs in singing and playing wind instruments. The suppression of habitual discharges, retrocession of cutaneous eruptions and metastasis of Gout and Rheumatism. It often complicates Smallpox. Typhoid fever, Measles, Hooping Cough, and Scarlet fever. It also ranks among the sequelae of some of these diseases.

Allopathic treatment especially the administration  
of large doses of Tartar Emetic and lastly  
accidental wounds or those the result of  
surgical operations.

The disease at first is announced by  
feverish symptoms such as chilliness  
followed by heat and acceleration of the  
pulse, also by a dull deep seated pain  
in the chest. There is <sup>difficulty</sup> of breathing or dyspnoea  
The patient complains of a weight on his  
chest - The dyspnoea increases as the inflam-  
-ation progresses and hepatisation takes place.  
At last the patient seems wholly occupied  
with respiration. The intense suffocation he  
he experiences makes him restless and struggle  
for more air. The blood not being properly  
aerated imparts a livid or very pale hue  
to his countenance. There is a frequent, conti-  
nous and short cough, at the outset dry but  
followed by the expectoration of a rusty

viscid sputa, At first the expectoration consists of a glairy mucus, but as inflammation goes on this changes to a rusty coloured sputa and this as the patient recovers returns to the first. Children and old persons do not give the rusty sputa, they expectorate much less than do the middle aged, The rusty sputa sometimes is so viscid as to adhere to the basin when inverted When this is the case, hepatication has occurred, When the expectoration becomes of a greenish reddish or dirty grey colour and has a foetid smell, gangrene has occurred, The patient generally lies on his back, though sometimes on the diseased side, His skin is hot and moist; there is thirst and a rapid full pulse, The headache is sometimes very violent and in the course of the disease delirium may occur, The urine in the first and second

stages sometimes shows a reddish grey sediment  
In the third stage the urine becomes thick and  
turbid with grey flakes suspended in it  
and pus can be detected in its sediment  
If allowed to stand for a few hours  
it becomes very offensive in its smell. The  
believer in Homoeopathy is justified in  
contemplating the treatment of this disease  
with great satisfaction, for the statistics of  
of Homoeopathic treatment of pneumonia  
prove its entire superiority to that of  
the old school, The Allopathic Physician  
considers it as one of the most formidable  
and fatal of diseases, and in the treat-  
ment of none does the foolishness of basing  
treatment upon mere theory more appear  
For their blind worship of theory has persuaded them  
to resort to treatment blood thirsty and savage  
When a number of Allopathic phys-  
icians surround a patient

patient suffering an attack of pneumonia, we have an opportunity of witnessing the first and last resorts of believers in the theories of learned men. The deflection of blood until the reaction of the system against the disease has been quite subdued, the administration of large doses of Tartar Emetic, draining the organs of their secretions by the administration of mercury, quieting the cough by stupefying the nervous centers with opium, and lastly the application of numerous leeches and blisters, we hear prescribed, after a very solemn consultation and no doubt true diagnosis - We exclaim - What a miracle if the poor fellow survives the concentrated attack of so many violent measures upon the vital forces. Yet now and then they do survive in spite of the tendency of the

treatment and to them do the Allopathic school refer in triumph though statistics plainly prove that more patients recover when left to nature than when thus treated. And by the same statistics it is proven that Homoeopathy cures more than unassisted nature. The remedies which Homoeopathic practitioners principally use are Aconite, Belladonna, Phosphorus, Tartar Emetic, Rhus, Bryonia, Sulphur, Arsenicum, Carbo Vegetabilis and China. Aconite is important whenever a fever is present, Bell is often administered in alternation with Ac when indicated by the brain symptoms, as violent headache flushed face and delirium. For the Plethora which often complicates pneumonia Aconite and Bryonia in alternation. Other symptoms may indicate another remedy instead of Aconite - Bry is

indicated by cutting pains and stitches  
in the side especially on inspiration  
therefore difficult and anxious respiration,  
and troublesome cough. When hepaticosis  
is revealed by the peculiar sputa, percussion,  
and auscultation, the physician should  
think of Tartar Emetic and Phos-Tartar.  
Emetic is indicated by cold and clam-  
my skin, expectoration of a yellowish or  
brownish colour and mixed with blood,  
small soft and frequent pulse, is  
especially useful when bilious symptoms  
are present, a yellowish, brownish fur on  
the tongue, bitter taste, nausea and bilious  
vomiting, yellow or dark urine and  
headache.

Phosphorus is indicated by the brown, rusty  
coloured sputa which is with pain coughed  
up, great oppression of breathing, sticking  
and violent stitches in various parts of the

chest, in the sides especially when setting  
and taking in an inspiration.

Bals is indicated by excessive redness  
of the face, great debility and pro-  
stration, extreme restlessness and abnor-  
motic pains in <sup>the</sup> chest and sides, when  
pneumonia is of a typhoid cast, Bry is  
often alternated with Bals with an  
improvement of the symptoms.  
Sulphur is often of great <sup>use</sup> in enabling  
the other remedies to act, by removing or  
diminishing the phora or scrofulous  
taint inherent to the system.

Arsenium is indicated by clammy skin  
great frequency of a weak pulse, the  
patient is greatly prostrated, his respi-  
ration is short and feeble, by dark tongue,  
extreme anguish; exhausting diarrhoea;  
expectoration of foetid disorganized matter.  
Carbo Vey and China rank in the same

Class with Aescinicum though the last is far the most reliable remedy. When the patient is very much enfeebled by the exhausting influence of the disease and does not rally under the treatment, he should be supported by port wine, beef tea and the like, thus life may be prolonged and the remedies having in the meanwhile answered the end for which they were administered the health of the patient be restored.

#### The dietetic regimen

While the fever continues high, and in the commencement of the disease, the diet should consist of farinaceous and mucilaginous drinks - While the treatment is with Aconite, all acid drinks should be prohibited, as they interfere with the action of this remedy. Otherwise they are allowable, such as the juice of Oranges or

of fresh grapes - The decoction or infusion of dried fruit will prove very grateful to the patient and at the same time be harmless. As the patient convalesces a more nourishing diet should be prescribed, He should be allowed weak black tea, toasted bread and crackers, boiled rice or Indian mush after this milk and finally the lighter meats, eggs, oysters etc.

The end

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